

REMARKS

Information Disclosure Statement

The accompanying patents and published applications, identified in the accompanying form PTO-1449, are presented for the Examiner's consideration. The fee required by 37 CFR § 1.17(p) is enclosed. These references are from the file of McGeer et al, U.S. Patent 6,264,140, abandoned McGeer et al U.S. application 10/013,094, filed October 29, 2001, McGeer et al, European application EP 00 95 0213, and applicant's provisional application 60/145,286, filed July 23, 1999.

Drawings

Revised drawing sheets are submitted herewith as required, giving separate Figure numbers: FIGS. 14A and 14B for the Figures previously identified as FIG. 14 and FIGS. 25A, 25B, and 25C for the Figures previously identified as FIG. 25. The specification has been amended to reflect these new numbers.

Priority Claim

The specification has been amended to insert the claim of priority to Provisional Application 60/145,286 in the first sentence following the title. The claim of priority was recognized in the filing receipt; under Part IV of the Office policy set out in the Notice dated February 24, 2003, no petition or surcharge is required under these circumstances.

Abstract

Applicant does not understand the indication that the application is lacking an abstract. Not only was an abstract supplied in the International phase of this

application, but it was published on the cover page of the PCT application. To resolve any possible problem, however, the abstract has been "added" as required.

Claim Status

Claims 128-130, 132, 133, 141, 147, 150-153, 157, 159, 168, 177, 184, 185, 187, 198, 209-214, 216, 217, 220, 221, and 223-291 are currently pending in the application.

Applicant confirms that claims 1-127 were canceled under Article 34 in the PCT application of which this application is the national stage. The filing fee was paid based on cancellation of those claims, but the filing receipt for this national stage application shows a filing fee based on inclusion of claims 1-127. After inquiry by our firm's paralegals, the Patent and Trademark Office promised to look into the matter, but no definitive response has been received, and our firm's deposit account has not been charged with any additional fees as authorized in the filing papers. Cancellation of claims 1-127 was previously also indicated in preliminary amendment B, filed with the U.S. national phase papers, in which all of the pending claims (claims 128-230 at that time) were set out in the appendix.

Applicant apologizes for any omission on his part that led to the extra effort expended by the Examiner in reviewing claims 1-127. He appreciates the indication of allowable subject matter. "Allowed" claim 115 has been rewritten as new claim 251.

Claims 128-230, which were added in an amendment under Article 34 during the international phase of this application have been listed as "previously

added." If the proper designation is "original" applicant again apologizes and will gladly change their designation if requested.

Claim rejections

Applicant appreciates the indication that claims 128, 150-152, 157, 184, 185, 209-214, 216, 217, 220, 221, 224, and 226-230 have been allowed.

Claim 129 was rejected as anticipated by King and as anticipated by Baird.

All applicable prior art cited by the examiner (i.e. Baird, King, Milligan) were devices for launching lightweight toy aircraft, either gliders or rubber-band powered toys. These references would not have suggested ways to launch a controlled aircraft of the type now used for reconnaissance and the like. The present invention is so unexpected that it warranted the enclosed article in Aviation Week & Space Technology, June 5, 2000. Nothing in the prior art shows or suggests the launch system as now claimed in claim 129 and in new claim 252, also based on claim 129.

Claim 130 has been rewritten in independent form. It was indicated as allowable if so rewritten.

Claim 132 is dependent on claim 129 and should be allowable with amended claim 129.

Claim 133 has been rewritten in independent form. It was indicated as allowable if so rewritten.

Claim 141 has been rewritten in independent form. It has been slightly broadened and clarified by replacing "within a parasail" with the phrase "with a

lifting device requiring a relative wind to generate lift." This claim was indicated as allowable if rewritten in independent form, and it is believed that the claim as now written clearly distinguishes over the prior art.

Claim 147 has been amended to be dependent on claim 150 and has been broadened. It is believed that since claim 150 has been indicated as allowable, claim 147 should also be allowable.

Claim 150 has been indicated as allowable. The claim has been further amended to add that the "structure suitable for deflecting said line laterally into engagement with said capturing device" is "selected from the group consisting of an aircraft wing and structure attached to an aircraft wing." It is believed that this language clearly distinguishes over Steinmetz, U.S. Patent 1,634,964, cited in the Information Disclosure Statement filed with this amendment, and that the claim as amended defines an invention which is neither shown nor suggested by any of the prior art.

Claim 153 has been amended to be dependent on claim 152, thereby providing proper antecedent basis for "said hook." This amendment therefore overcomes the rejection under 35 USC § 112, second paragraph. The claim was indicated as allowable if so amended.

Claim 159 was rejected under 35 USC § 112, second paragraph, for lack of antecedent basis for "the propeller." The claim has been amended to recite "a propeller of said aircraft."

Claim 168 has been rewritten in independent form. It was indicated as allowable if so rewritten.

Claim 177 has been rewritten to be dependent on claim 257 and is believed to be allowable with that claim, which is dependent on claim 150, previously indicated as allowable.

Claim 187 was rejected as anticipated by Reuter et al. The Examiner indicates that the junction between the wing and fuselage of Reuter et al. could be "considered to constitute a hook capable of interacting with tow line 24 or arresting means 34." This claim has been amended to recite that the hook is "positioned so as to engage a line in said net and prevent said aircraft from passing through said net during contact of said aircraft with said net," and further recites "structure that allows said line to engage said hook but prevents said line from backing away from said aircraft." Nothing in Reuter et al. shows or suggests this construction.

Claim 198 was also rejected as anticipated by Reuter et al. This method claim has been amended to place it in independent form and to further recite that "said maneuvered aircraft is adapted to engage said arrestment means while flying flight path other than a level flight path in a vertical plane defined by said tow line." The term "non-coincident" as used in the claim has thus been replaced by descriptive language based on the disclosure at page 17, lines 6-11. It will be seen that Reuter et al.'s method relies on a coincident flight path.

Claim 223 remains dependent on claim 129, which is believed to be allowable as amended.

Claim 225 remains dependent on claim 130, which has been rewritten in independent form to make it allowable.

Claims 231-247 and 249-250 were rejected as anticipated by Tucker, U.S. Patent 1,748,663. These are claims from McGeer et al, U.S. patent 6,264,140. Claims 231-250 were also rejected under 35 USC § 112, second paragraph as being indefinite.

These claims have been amended to overcome the rejections under 35 U.S.C. § 112. The term "fixture(s)" has been replaced by "fixture." Also, the "apparatus" claims have been amended to be in the form of "combination" claims, thereby including the flying object in the claims. It should be noted that claims 238-250 have been further amended to remove the phrase "linear or curvilinear" which is not believed to be necessary for patentability.

The rejection of claims 231-247 and 249-250, as now written, over Tucker is respectfully traversed.

In Tucker the hook is at the end of a long pole extending above the aircraft and the arrestment loop 47 passes above the wing, propeller, and aircraft fuselage and hits this pole and slides up it until it engages the hook. Nothing on the aircraft except this pole and hook ever contacts the arrestment loop. In Tucker there is no hook on the wing, and the loop never slides along or even comes close to the wing. If the loop ever did contact the wing, then the aircraft would have been much too high for a safe recovery and the loop would have either hit and gotten tangled in the propeller or would have had to pass under the propeller and the fuselage. In either case the loop 47 would not have been able to get to and be captured by the hook 50 because it would be trapped under the fuselage or tangled in the propeller. This would undoubtedly result in disaster

with the aircraft not being properly retained and pitching up until it fell out of the loop 47.

The benefits of the present system over Tucker are significant. A dedicated structure 51 and 52 is not required since the wing now performs this function thus eliminating weight, drag and complexity. In the current invention the altitude or lateral position of the recovery aircraft is much less critical. The vertical hanging arrestment line can be very long allowing a great deal of flexibility in aircraft altitude. Also the wing of an aircraft is quite wide allowing considerable flexibility in lateral position and still allowing contact of the wing with the vertical hanging arrestment line. In addition if the aircraft misses the cable it can fly around for another engagement and unlike Tucker the aircraft cannot snag on the arrestment cable resulting in a crash.

Claim 251 is prior claim 115. Because claim 115 was cancelled before entering the U.S. national phase, it is believed that this is a new, rather than a reinstated claim. It has been indicated as both "new" and as "formerly claim 115." This claim has been indicated as allowable.

Claim 252, as mentioned above, is based on claim 129 and recites that the aircraft comprises a sensor. None of the prior art suggests such a launch system for an aircraft comprising a sensor.

Claim 253 is directed to an aerial recovery system for a **heavier-than-air** aircraft, comprising, inter alia, "structure suitable for deflecting said line **laterally** into engagement with said capturing device." The claim is thus believed to distinguish patentably over Steinmetz, Tucker, and Reuter.

Claims 254-256 are dependent on claim 187. They should be allowable for the reasons discussed in connection with amended claim 187.

Claims 257-261 are dependent on allowed claim 150.

Claims 262, 290, and 291 are dependent on new claim 253 and are believed to be allowable with it.

Claims 263-278 are based on claims presented in McGeer et al., abandoned U.S. application Serial No. 10/013094, published as Publication No. 2002/0100838, and in McGeer et al., European Application EP 1185457 A1. It is believed that these claims overcome the rejections of claims 231-250. The claims are written either to a method or recovering an aircraft or else to a combination of the aircraft and the recovery device, so that the claims consistently claim the combination of the aircraft and the recovery device. As discussed above with respect to claims 231-250, Tucker neither shows nor suggests the structure or method of these claims.

Claims 279-280 are dependent on claim 270 and are believed to be allowable with it.

Claims 281-288 are written along the lines of claims 263-277 but are of somewhat different scope.

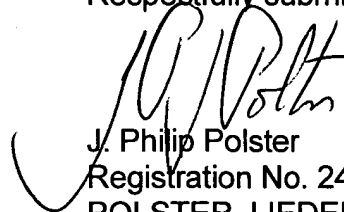
Claim 289 is directed to an aircraft suitable for use in the combination and method.

All these claims 263-289 are believed to define an invention which is neither shown nor suggested by the prior art.

It is believed that several of the claims of the present application would be anticipated by the disclosure of McGeer, U.S. Patent 6,264,140. Applicant is therefore submitting a Declaration under 37 CFR 1.131 (including three exhibits) attesting to his completion of the invention as claimed before June 8, 1999, the earliest possible effective filing date of the McGeer et al. patent. It is respectfully requested that as to all those claims of the present invention which are not claiming the same patentable invention as is claimed in the McGeer et al. patent, the claims be allowed.

It is respectfully requested that the claims be allowed subject to declaration of an interference with the McGeer et al. patent as to any claims which are deemed to be directed to the same patentable subject matter as the claims of that patent. Should the Examiner have questions or suggestions, he is requested to call applicant's undersigned attorney at 314-872-8118, extension 426.

Respectfully submitted,



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